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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

Application Number: 09/866,143

Filing Date: May 25, 2001

Appellant(s): KIRNOS, ILYA

SEP 11 2007

**Technology Center 2100**

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Joseph M. Olsen  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8/2/07 appealing from the Office action  
mailed 12/4/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

<b>6,856,993</b>	<b>Verma et al.</b>	<b>6-2001</b>
<b>6,473,767</b>	<b>Bailey et al.</b>	<b>4-2004</b>
<b>6.636.878</b>	<b>Rudoff</b>	<b>1-2003</b>
<b>6,101,508</b>	<b>Wolff</b>	

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

These rejections are set forth in prior Office Action, Paper No.

09866143\20061124 and reproduced for the convenience.

1. This action was responding to application RCE filed 1/9//2006 and arguments filed 8/14/06. Claims 1 – 33, 76 - 88, 90 - 107 are pending. Claims 1 - 33, 76 - 88, 90 - 107 was amended with RCE. Claims 34 - 75 were cancelled by **Election/Restrictions**. Claim 89 was cancelled. Independent claims are 1, 12, 25, 31, 76, 87, 99, 105.

2. **Claims 1 - 3, 6, 9, 12 - 16, 21, 24, 25, 31 - 33, 76 - 78, 81, 84, 87, 88, 90, 95, 99, 105 - 107** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Verma et al.** (US Patent No. 6,856,993) in view of **Bailey et al.** (US Patent No. 6,473,767) and further in view of **Rudoff** (US Patent No. 6,636,878).

**Regarding Claims 1, 76,** Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:

b) generating a working version of a portion of the file system, the working version including at least a one or more working items that corresponds to the one or more items located in the file system; (see Verma col. 16, lines 39-44: 1<sup>st</sup> and 2<sup>nd</sup> operational states (i.e. working item states) for same file)

Bailey discloses:

a) recording information about one or more items in a file system to a comparison file, wherein the information the information recorded to the comparison file includes location information to identify where in the file system the one or more items are located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison file or working item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

d) upon a synchronization event, comparing using the location information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new

location in the working version. (see Verma col. 16, lines 39-44: 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> operational states (i.e. working item states) for first and second files, separate file handle (i.e. working item) for separate first and second file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for file modifications (i.e. working version) that is persistent as taught by Rudoff.

One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17: "... file system is to enable a user to create a logical structure of files ... manage the secondary storage of this data onto disk or tape, controlling its retrieval and security ..."; col. 2, lines 36-38: "... file and library' systems do not have the ability to easily handle deleted files so that copies are automatically deleted... "), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38: "... *mechanism for replicating an individual file or group of selected files on a computer system that minimizes the storage space required when there are portions of the*

*original file and the copy that remain the same ... ".*

**Regarding Claims 2, 77,** Verma discloses the computer-implemented method of claims 1, 76, wherein if any of the corresponding working items has been moved in the working version, the method includes causing the item in the file system to move to a corresponding new location in the file system. (see Verma col. 16, lines 39-44: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> operational states (i.e. working item states) for same file)

**Regarding Claims 3, 78,** Verma discloses the computer-implemented method of claims 1, 76, wherein comparing the information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location includes determining if any of the one or more working items has a new name. (see Verma col. 28, lines 30-37; col. 8, lines 26-28: rename operation performed and file system update completed)

**Regarding Claims 6, 81,** Verma discloses the computer-implemented method of claims 1, 76, further including signaling the file system to delete the item in the file system if corresponding item has been deleted from the working version. (see Verma col. 11, lines 10-12; col. 28, lines 14-20; col. 8, lines 26-28: delete operation performed and file system update completed)

**Regarding Claims 9, 84,** Verma discloses the computer-implemented method of claims

1, 76, further comprising determining if the one or more first working items was edited subsequent to making the working version. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: edit operation performed and file system update completed)

**Regarding Claim 12**, Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:

- b) making a working version of a portion of the file system, wherein the working version includes one or more working items corresponding to the one or more items in the file system; (see Verma col. 3, lines 13-19: isolation directory (i.e. working item) for file system information manipulation)

Bailey discloses:

- a) recording information about one or more items in a file system to a comparison file, wherein the information recorded to the comparison file includes location information to identify where in the file system the one or more items is located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)
- d) upon a synchronization event, comparing information in the comparison file to the working version to determine if a first working item in the working version was copied from a second working item in the working version. (see Verma col. 11, lines 10; col. 8, lines 26-28: read/write (i.e. copy) operation performed and file

system update completed) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

- c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for file modifications (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

**Regarding Claims 13, 88, Verma discloses the computer-implemented method of claims 12, 87, further comprising causing the portion of the file system to include the first working item after determining the first working item was copied from the second working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: read/write (i.e. copy) operation performed and completed)**

**Regarding Claim 14,** Verma discloses the computer-implemented method of claims 12, 87, wherein the second working item originates from a first item in the portion of the file system. (see Verma col. 16, lines 39-44: 1<sup>st</sup> and 2<sup>nd</sup> operational states (i.e. working item states) for same file)

**Regarding Claim 15,** Verma discloses the computer-implemented method of claim 13, wherein the second working item is created as new after the working version is made. (see Verma col. 11, lines 10-12: file creation (i.e. new) operation performed)

**Regarding Claims 16, 90,** Verma discloses the computer-implemented method of claims 13, 88, wherein a content of the first working item is different than a content of the second working item. (see Verma col. 9, lines 10-17: separate first and second file handles (i.e. first and second working items) for manipulation of two separate files)

**Regarding Claim 21,** Verma discloses the computer-implemented method of claim 12, further comprising determining if the first working item was edited after being copied from the second working item. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed)

**Regarding Claim 24,** Verma discloses the computer-implemented method of claim 12, wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second

working item in the working version includes comparing a content of the first working item to a content of the second working item. (see Verma col. 11, lines 10-12: determination of edited (i.e. changed contents) file information via file handle (i.e. working item)) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities. (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38)

**Regarding Claims 25, 99, Verma discloses a computer-implemented method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operational system), the method comprising:**

- b) making a working version of a portion of the file system, the working version including at least a first working item originating from the first item, the first working item initially being located at a first working location, the first working location corresponding to the first location information; (see Verma col. 16, lines 39-44: 1<sup>st</sup> and 2<sup>nd</sup> operational states (i.e. working item states) for same file)

Bailey discloses:

- a) recording information about a file system to a comparison file, the information identifying at least a first item in the file system located at a first location, the first location being identifiable by a first location information; (see Verma col. 9, lines 10-17: file handler (i.e. comparison item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)
- d) upon a synchronization event, comparing information in the comparison file to the working version to detect if at least one of two operations were performed on the working version, the operations including changing the first working location information for the first working item, and editing a content of the first working item. (see Verma col. 11, lines 10-12: file management operation(s) (i.e. editing) performed on file indicated by file handle (i.e. working item)) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

- c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a

logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

**Regarding Claims 31, 105,** Verma discloses a method for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file system management operations), the method comprising:

- b) making a working version of a portion of the file system, the working version including at least a first working item originating from the first item, the first working item initially being located at a second location, the second location being identifiable by the first location information; (see Verma col. 16, lines 39-44: 1<sup>st</sup> and 2<sup>nd</sup> operational states (i.e. working item states) for same file)

Bailey discloses:

- a) recording information about a file system to a comparison file, the information identifying at least a first item in the file system located at a first location, the first location being identifiable by a first location information; (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)
- d) using information in the comparison file and about the working version to determine if a compound operation was performed on the first working item, the

compound operation including at least two successive operations from a set of operations that consist of changing the first location information for the first working item, making a first working copy from the first working item, and editing a content of the first working item. (see Verma col. 11, lines 10-12; col. 16, lines 39-44; col. 8, lines 26-28: at least two (i.e. compound) read/write (i.e. copy, edit) operations performed and file system update completed) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

- c) persistently maintaining the working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

**Regarding Claims 32, 106, Verma discloses the method of claims 31, 105, further**

comprising causing the portion of the file system to incorporate changes made by operations performed on the working version so that the first item matches the first working item. (see Verma col. 8, lines 26-28: read/write (i.e. edit) operation completed or committed within actual file (i.e. actual file contents matches working item))

**Regarding Claims 33, 107,** Verma discloses the method of claims 31, 105, wherein for one of the at least two compound operations being making a first working copy from the first working item, the method further includes determining if a selected working item in the working version was once copied from the first working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: read/write (i.e. copy) operation performed and completed)

**Regarding Claim 87,** Verma discloses a computer readable medium carrying instructions for managing files (see Verma col. 8, lines 54-61; col. 8, lines 20-25: file management operations) on different computers, the instructions including instructions for performing the steps of:

- b) making a working version of a portion of the file system, wherein the working version includes one or more working items corresponding to the one or more items in the file system;

Bailey discloses:

- a) recording information about one or more items in a file system to a comparison file making a working version of a portion of the file system, wherein the

information recorded to the comparison file includes location information to identify where in the file system the one or more items is located; (see Verma col. 9, lines 10-17: file handler (i.e. comparison file or working version) for file system management operations) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

- d) upon a synchronization event, comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a first working item location in the working version. (see Verma col. 11, lines 10-12: 1<sup>st</sup> and 2<sup>nd</sup> operational states (i.e. working item states) for same file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

And, Rudoff discloses:

- c) persistently maintaining a working version; (see Rudoff col. 6, lines 33-40; col. 6, lines 41-47; col. 7, lines 28-33: file system working information (i.e. comparison information between two files) maintained, information is persistent)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to enable the usage of a comparison file with file directory entries for processing as taught by Bailey, and to enable usage of a working version for files modification (i.e. working version) that is persistent as taught by Rudoff. One of ordinary skill in the art would be motivated to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38), and to employ Rudoff in order to optimize storage

requirements in the manipulation of working versions in the management of file systems (see Rudoff col. 3, lines 34-38).

**Regarding Claim 95 (Currently Amended), Verma discloses the method of claim 87, further comprising determining if the first working item was edited after being copied from the second working item. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed)**

3. **Claims 4, 5, 7, 8, 10, 11, 17 - 20, 22, 23, 26 - 30, 79, 80, 82, 83, 85, 86, 91 - 94, 96 - 98, 100 - 104** are rejected under 35 U.S.C. 103(a) as being unpatentable over Verma-Bailey-Rudoff and further in view of Wolff (US Patent No. 6,101,508).

**Regarding Claims 4, 29, 79, 103, Verma discloses wherein generating the working version of a portion of the file system in the one or more working items of the comparison file. (see Verma col. 2, lines 33-35: file management operations) Verma does not specifically disclose a creation time as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 3, 25, 78, 99, wherein includes recording a creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically includes a creation time)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item

containing a creation time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34: "*... an improved system and method for distributed processing over a network ... a system would remove the bottlenecks and disadvantages associated with current distributed networks ... allow the distribution of processes to function and be managed in a cross platform environment ...*")

**Regarding Claims 5, 80,** Verma discloses wherein comparing the location information for the one or more items in the comparison file and about the working version to determine if any of the corresponding one or more working items has been moved to a new location includes locating the one or more working items in the working version. (see Verma col. 2, lines 33-35; col. 16, lines 33-35: file system management operations) Verma does not specifically disclose a creation time as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 3, 78, wherein using a creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a creation time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of

data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 7, 82,** Verma discloses the computer-implemented method of claims 4, 81, further including using the creation time of the one or more working items to determine if any of the one or more first working items has been deleted from the working version and signaling the file system to delete the corresponding item in the file system. (see Verma col. 11, lines 10-12; col. 28, lines 14-20: deletion operation performed and file system update completed)

**Regarding Claims 8, 83,** Verma discloses wherein making a working version of a portion of the one or more working items in the comparison file. (see Verma col. 2, lines 33-35: file management operations) Verma does not specifically disclose a modification time parameter as part of the working file management item. However, Wolff discloses the computer-implemented method of claims 4, 79, wherein includes recording a modification time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a modification time parameter as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of

ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claims 10, 85,** Verma discloses wherein further comprising determining if the one or more working items were edited subsequent to making the working version of the one or more working items. (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed) Verma does not disclose a modification time parameter. However, Wolff disclose the computer-implemented method of claims 8, 83, wherein a modification time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 11, 86,** Verma does not disclose a modification time parameter. However, Wolff discloses the computer-implemented method of claims 10, 85, further comprising determining if a subsequent modification time of the one or more working

items is different than the recorded modification time for the one or more working items. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a modification time, comparison of time parameters)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 17, 91**, Verma discloses wherein making a working version in the comparison file for the one or more working items. (see Verma col. 2, lines 33-35: file management operations) Verma does not specifically disclose creation and modification time parameters as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 14, 87, wherein includes recording both a creation time and a modification time (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation and a modification time) and Bailey discloses a comparison files. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable

the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claims 18, 92,** Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version. (see Verma col. 2, lines 33-35; col. 16, lines 33-35; col. 11, lines 10-12: file system management operations (i.e. copy)) Verma does not specifically disclose creation and modification time parameters as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 17, 91, wherein includes identifying a creation time and a modification time for the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management: ) information specifically a creation and a modification time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable

the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claims 19, 93,** Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version. (see Verma col. 2, lines 33-35; col. 16, lines 33-35: file management operations, determination of copy operation performed) Verma does not specifically disclose a comparison of creation and modification time parameters. However, Wolff discloses the computer-implemented method of claims 18, 92, wherein detecting that the modification time of the first working item is before the creation time of the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters as taught by Wolff, and to enable

the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claims 20, 94,** Verma discloses wherein comparing information in the comparison file to the working version to determine if a first working item in the working version was once copied from a second working item in the working version (see Verma col. 9, lines 10-17; col. 11, lines 10-12: file handler (i.e. working item) for file system management operations, read/write (i.e. copy) operation performed) Verma does not disclose modification time parameters and comparison of time parameters. However, Wolff discloses the computer-implemented method of claims 19, 93, wherein includes matching the modification time of the first working item with the modification time of the second working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file management item containing a

modification time parameter and a comparison of modification times as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claims 22, 96,** Verma discloses wherein further comprising determining that the first working item is new. (see Verma col. 2, lines 33-35; col. 11, lines 10-12: creation (i.e. new) file system management operation performed) Verma does not specifically disclose a comparison of creation times. However, Wolff discloses the computer-implemented method of claims 18, 92, wherein if a creation time is different than a creation time of all of the items identified by the comparison file and if the modification time for the first working item is greater than or equal to creation time for the first working item. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28; col. 75, lines 6-10: directory (file management) information specifically a creation and a modification time, comparison of creation times)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing creation and modification time parameters and comparison of time parameters as taught by Wolff. One of ordinary skill in the art would be motivated to

employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 23, 97,** Verma discloses the computer-implemented method of claims 22, 96, further comprising causing the portion of the file system to include the first working item after determining the first working item is new. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: creation (i.e. new) operation performed and completed)

**Regarding Claim 26,** Verma discloses wherein making a working version of a portion of the file system for the first working item in the comparison file, (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) Verma does not specifically disclose a modification time. However, Wolff discloses the computer-implemented method of claims 25, 99, wherein the initial modification time recording a last instance when the first working item was either edited or created. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 27, 101,** Verma discloses wherein detecting the operation of editing the content of the first working item (see Verma col. 11, lines 10-12: read/write (i.e. edit) operation performed) Verma does not specifically disclose a modification time. However, Wolff discloses the computer-implemented method of claims 26, 100, wherein includes subsequently determining if the initial modification time was changed. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

**Regarding Claims 28, 102,** Verma discloses the computer-implemented method of claims 27, 101, further comprising causing the first item of the file system to include the edited content of the first working item. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: completion of a read/write (i.e. edit) operation, contents of actual file updated)

**Regarding Claims 30, 104,** Verma discloses wherein comparing information in the comparison file to the working version to detect if at least one of two operations were performed on the working version includes locating the first working item in the working

version. (see Verma col. 11, lines 10-12; col. 8, lines 26-28: one or more file system management operations performed and file system update completed) Verma does not specifically disclose a creation time parameter as part of the working file system management item. However, Wolff discloses the computer-implemented method of claims 29, 103, wherein using the creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a creation time) and Bailey discloses a comparison file. (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a creation time parameter as taught by Wolff, and to enable the usage of a comparison file with file directory entries for processing as taught by Bailey. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment (see Wolff col. 2, lines 28-34), and to employ Bailey in order to enable a logical file structure with the capability to handle file deletion capabilities (see Bailey col. 1, lines 13-17 ; col. 2, lines 36-38).

**Regarding Claim 98**, Verma discloses the method of claim 87, wherein using information in the comparison file and about the working version to subsequently determine if a first working item in the working version was once copied from a second working item in the working version includes comparing a content of the first working

item to a content of the working item at the second working item location. (see Verma col. 11, lines 10-12: determination of edited (i.e. copied, changed contents) of file information via file handle (i.e. working item))

**Regarding Claims 100**, Verma discloses wherein making a working version of a portion of the file system for the first working item in the comparison file, (see Verma col. 9, lines 10-17: file handler (i.e. working item) for file system management operations) Verma does not specifically disclose a modification time. However, Wolff discloses the method of claims 25, 99, wherein the initial modification time recording a last instance when the first working item was either edited or created. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically a modification time)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Verma to utilize a file system management item containing a modification time parameter as taught by Wolff. One of ordinary skill in the art would be motivated to employ Wolff in order to optimize and improve distributed processing of data within a network environment. (see Wolff col. 2, lines 28-34)

#### **(10) Grounds of Rejection**

- I. Claims 1-3, 6-9, 12-16, 21, 24, 25, 31-33, 76-78, 81, 84, 87-88, 90, 95, 99, and 105-107 are patentable over Verma in view of Bailey and further in view of Rudoff.

II. **Claims 4, 5, 7, 8, 10, 11, 17-20, 22, 23, 26-30, 79, 80, 82, 83, 85, 86, 91- 94, 96-98, 100-104** are patentable over Verma-Bailey-Rudoff and further in view of Wolff

## Arguments

**A. Claims 1-3, 6-9, 12-16, 21, 24, 25, 31-33, 76-78, 81, 84, 87-88, 90, 95, 99, and 105-107 are patentable over Verma in view of Bailey and further in view of Rudoff.**

**Argument A.1:** *Applicant argues that the referenced prior art does not disclose, "recording information about one or more items in a file system to a comparison file, wherein the information recorded to the comparison file". (see Appeal Remarks Page 8); (see Appeal Remarks Pages 12); (see Appeal Remarks Page 16)*

### **As to Argument A.1:**

A transaction is equivalent to a change or modification to a particular file system. The Verma prior art discloses that information concerning the changes to a file system is stored in a file (transactional context file). And, this stored information is equivalent to a comparison file. The completion of a transaction on a file system synchronizes that file system with the required file system update information.

By applicant's specification operations performed, "... include the operations of editing items, moving items, making new items, copying items, deleting items and combinations thereof....", (see specification paragraph [0052]). The Verma prior art discloses that the tracked transaction operations are, "... read, write, delete, and rename ...", operations. (see Verma col. 7, lines 6-7: transaction object (i.e.

comparison file)); col. 2, lines 18-20; col. 2, lines 33-35: file system operations, new file or create operation) These are equivalent type operations. And, the Verma prior art records the information concerning file system transactions in an object. (see Verma col. 7, lines 6-7: transaction object (i.e. comparison file))

A sequence of operations is performed on a file system (a particular file) in order to complete a specific file system manipulation action. The Verma prior art store information that enables the storage of information about a file system.

Applicant states that the Verma prior art stores file system operations (see Appeal Remarks Page 10, Lines 4-5), which is information about the file system as per claim limitation. The comparison file of the Verma prior art can be used to determine what changes have occurred for a file system. The operations performed on the file system are stored in the transaction context file by the Verma prior art and can be used to determine what changes have occurred in a particular file system. These prior art disclosures are equivalent to claim limitations. Information about the file system is stored in a file, and the information in this files can be used to synchronize the actual file system.

Applicant states to indicate which one are the comparison file (the file handle or transaction context). (see Appeal Remarks Page 10, Lines 16-18) The file handle is a pointer to the transaction context (comparison file). As per specification paragraph [0029], the comparison file is used to detect changes made to the working version of the

file system. The transactional context file (comparison file) is used to indicate (detect) changes made to the working version of a file system or portion thereof.

Applicant's invention tracks the operations performed on a file system and stores this information. The Verma prior art tracks the operations performed on a file system and stores this information. The application of the stored operations information is applied to the file system synchronization is performed. These are equivalent functions.

The Rudoff prior art was not used in the rejection the claim limitation. (see Appeal Remarks Page 12) The Verma and Bailey prior arts were utilized in the rejection to this claim limitation.

**Argument A.2:** *Applicant argues that the referenced prior art does not disclose, "upon a synchronization event, comparing the location information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location in the working version". (see Appeal Remarks Page 8); (see Appeal Remarks Pages 11, 12); (see Appeal Remarks Page 16)*

**As to Argument A.2:**

The Verma prior art discloses a file management system (see Verma col. 2, lines 14-17) with the generation of a comparison file, which discloses file system transactions, such as the movement of a file to a new location. This is a file system

update operation. (see Verma col. 2, lines 18-20; col. 2, lines 33-35: file system update operation (i.e. delete, create, move))

The Verma and Bailey prior art combination discloses a file management system with a comparison file directory utilized to perform comparison operations. (see Bailey col. 2, lines 41- 56: working directories and comparison operations on directories) The Verma and Bailey prior art combination discloses the capability to compare directory information to determine file system information updates between two entities. (see Verma col. 16, lines 39-44:1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (pointer, working item) for separate first and second files) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

**Argument A.3:** *Applicant argues that the referenced prior art does not disclose, motivation to combine the referenced prior art. (see Appeal Remarks Pages 13,14,15)*

**As to Argument A.3:**

An obtained advantage is an acceptable reason for the obvious combination of prior art to one skilled in the art.

The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the

motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

**Argument A.4:** *Applicant argues that the referenced prior art does not disclose, "upon a synchronization event, comparing information in the comparison file to the working version to determine if a first working item in the working version was copied from a second working item in the working version". (see Appeal Remarks Page 15)*

**As to Argument A.4:**

The Verma prior art discloses the capability for the generation and usage of a comparison file containing file system change information. The Verma and Bailey prior art combination discloses the capability to compare a working version of the management information such as in a comparison file. The results of a comparison would indicate whether the information in a working item for a file system was copied from a second working item. A comparison would indicate that the two working items were identical (copies). (see Verma col. 16, lines 39-44: 1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (i.e. working item) for separate first and second file) and (see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

**Argument A.5:** *Applicant argues that the referenced prior art does not disclose, "detecting if at least one of two operations were performed on the working version, the operations including changing the first working location information for the first working*

*item, and editing a content of the first working item". (see Appeal Remarks Page 16); "determining if a compound operation was performed on the first working item, the compound operation including at least two successive operations from a set of operations that consist of changing the first working location information for the first working item, making a first working copy from the first working item, and editing a content of the first working item". (see Appeal Remarks Page 17)*

**As to Argument A.5:**

The Verma and Bailey prior art combination disclose comparing file system information. The Verma prior art discloses a comparison file, which indicates the file system operations performed on the particular file system. Therefore, the Verma prior art discloses determining if at least one of two file system operations were performed on a file system. The comparison file would be modified as the file system operation (transaction) information is generated and the contents of the working item are updated to reflect the file system operations.

**Argument A.6:** *Applicant argues that the referenced prior art does not disclose, dependent claim limitations. (see Appeal Remarks Page 18)*

**As to Argument A.6:**

The arguments for these dependent claim limitations are based on the arguments for the corresponding independent claims. The responses to the corresponding independent claims are restated as response to arguments for these dependent claims.

These arguments were addressed in previous responses.

**B. Claims 4, 5, 7, 8, 10, 11, 17-20, 22, 23, 26-30, 79, 80, 82, 83, 85, 86, 91- 94, 96-98, 100-104** are patentable over Verma-Bailey-Rudoff and further in view of Wolff

**Argument B.1:** Applicant argues that the referenced prior art does not disclose, "recording information about one or more items in a file system to a comparison file" and "upon a synchronization event, comparing the location information for the one or more items in the comparison file to the working version to determine if any of the corresponding one or more working items has been moved to a new location in the working version" as recited in Claim 1. Notably, the Examiner does not allege. (see Appeal Remarks Page 19)

**As to Argument B.1:**

The Wolff prior art is not used for the rejection of these claim limitations.

**Argument B.2:** Applicant argues that the referenced prior art does not disclose, "wherein generating the working version of a portion of the file system includes recording a creation time of the one or more working items in the comparison file". (see Appeal Remarks Page 19)

**As to Argument B.2:**

The Verma prior art discloses the generation of a working version of a portion of a file system. And, the Wolff prior art discloses the additional capability for the

manipulation (recording) of file system management information such as creation time.  
(see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management)  
information specifically includes a creation time)

**Argument B.3:** *Applicant argues that the referenced prior art does not disclose, "locating the one or more working items in the working version using the creation time."* (see Appeal Remarks Page 19)

**As to Argument B.3:**

The Verma prior art discloses the generation of a working version of a portion of a file system. And, the Wolff prior art discloses the additional capability for the manipulation (search, location of specific information) of file system management information based on the creation time. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically includes a creation time)

**Argument B.4:** *Applicant argues that the referenced prior art does not disclose, "using the creation time of the one or more working items to determine if any of the one or more working items has been deleted from the working version and signaling the file system to delete the corresponding item in the file system".* (see Appeal Remarks Page 19)

**As to Argument B.4:**

The Verma prior art discloses the generation of a working version of a portion of a file system. And, the Wolff prior art discloses the additional capability for the manipulation (deletion of item) of file system management information such as a deletion operation. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically includes a creation time)

**Argument B.5:** *Applicant argues that the referenced prior art does not disclose, "recording a modification time of the one or more working items in the comparison file." (see Appeal Remarks Page 19)*

**As to Argument B.5:**

The Verma prior art discloses the generation of a working version of a portion of a file system. And, the Wolff prior art discloses the additional capability for the manipulation (recording, storage) of file system management information such as a creation time in the comparison file. (see Wolff col. 23, lines 20-30; col. 69, lines 21-28: directory (file management) information specifically includes a creation time)

**Argument B.6:** *Applicant argues that the referenced prior art does not disclose, "determining if the one or more working items were edited subsequent to making the working version using the modification time of the one or more working items". (see Appeal Remarks Page 19)*

**As to Argument B.6:**

Applicant's specification indicates that the operations performed, "... include the operations of editing items, moving items, making new items, copying items, deleting items and combinations thereof.... ", (see specification paragraph [0052]. The Verma prior art discloses that the tracked transaction operations are, "... *read, write, delete, and rename* ... "operation. (see Verma col. 2, lines 18-20; col. 2, lines 33-35: file system operations, new file or create operation) These are equivalent type operations. And, the Verma prior art records (editing) the information concerning file system transactions in an object (comparison file, transaction context object). (see Verma col. 7, lines 6-7: transaction object (i.e. comparison file))

**Argument B.7:** *Applicant argues that the referenced prior art does not disclose, "determining if a subsequent modification time of the one or more working items is different than the recorded modification time for the one or more working items". (see Appeal Remarks Pages 19-20)*

**As to Argument B.7:**

The Verma and Bailey prior art combination discloses a file management system with a comparison file directory utilized to perform comparison operations. (see Bailey col. 2, lines 41- 56: working directories and comparison operations on directories) The Verma and Bailey prior art combination discloses the capability to compare directory information to determine file system information differences. (see Verma col. 16, lines 39-44:1st, 2nd and 3rd operational states (i.e. working item states) for first and second files, separate file handle (pointer, working item) for separate first and second files) and

(see Bailey col. 2, lines 41-56: working directories and comparison operations on directories)

The Wolff prior art discloses the additional capability for the manipulation (comparison) of file system management information such as a modification times in the comparison file.

**Argument B.8:** *Applicant argues that the referenced prior art does not disclose, motivation to combine referenced prior art. (see Appeal Remarks Page 21)*

**As to Argument B.8:**

An obtained advantage is an acceptable reason for the obvious combination of prior art to one skilled in the art. The motivation indicates the capability to improve make more effective distributed processing of data. The inclusion of additional information would improve and make the processing of data within that file system more effective. This would clearly deliver an advantage from the combination of these prior arts.

The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

**Argument B.9:** Applicant argues that the referenced prior art does not disclose, *dependent claims*. (see *Appeal Remarks Page 22*)

**As to Argument B.9:**

The arguments for these dependent claim limitations are based on the arguments for the corresponding independent claims. The responses to the corresponding independent claims are restated as response to arguments for these dependent claims. These arguments were addressed in previous responses.

**Conclusion**

The Verma prior art discloses the generation of a comparison file, which can be utilized to storage update information for a file system. The Verma and Bailey prior art combination disclose the capability to compare the file system management information in comparison files. The Wolff prior art delivers the capability to utilize temporal information in the management of file system information. This claimed invention discloses the manipulation of file system information, which is not a novel idea and is well known in the art.

It was determined that the current set of prior art consisting of **Verma (6,856,993)**, **Rudolf (6,636,878)**, **Wolff (6,101,508)**, and **Bailey (6,473,767)** discloses the applicant's invention including disclosures in Appeal Remarks dated August 2, 2007.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

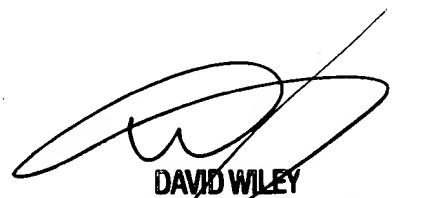
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